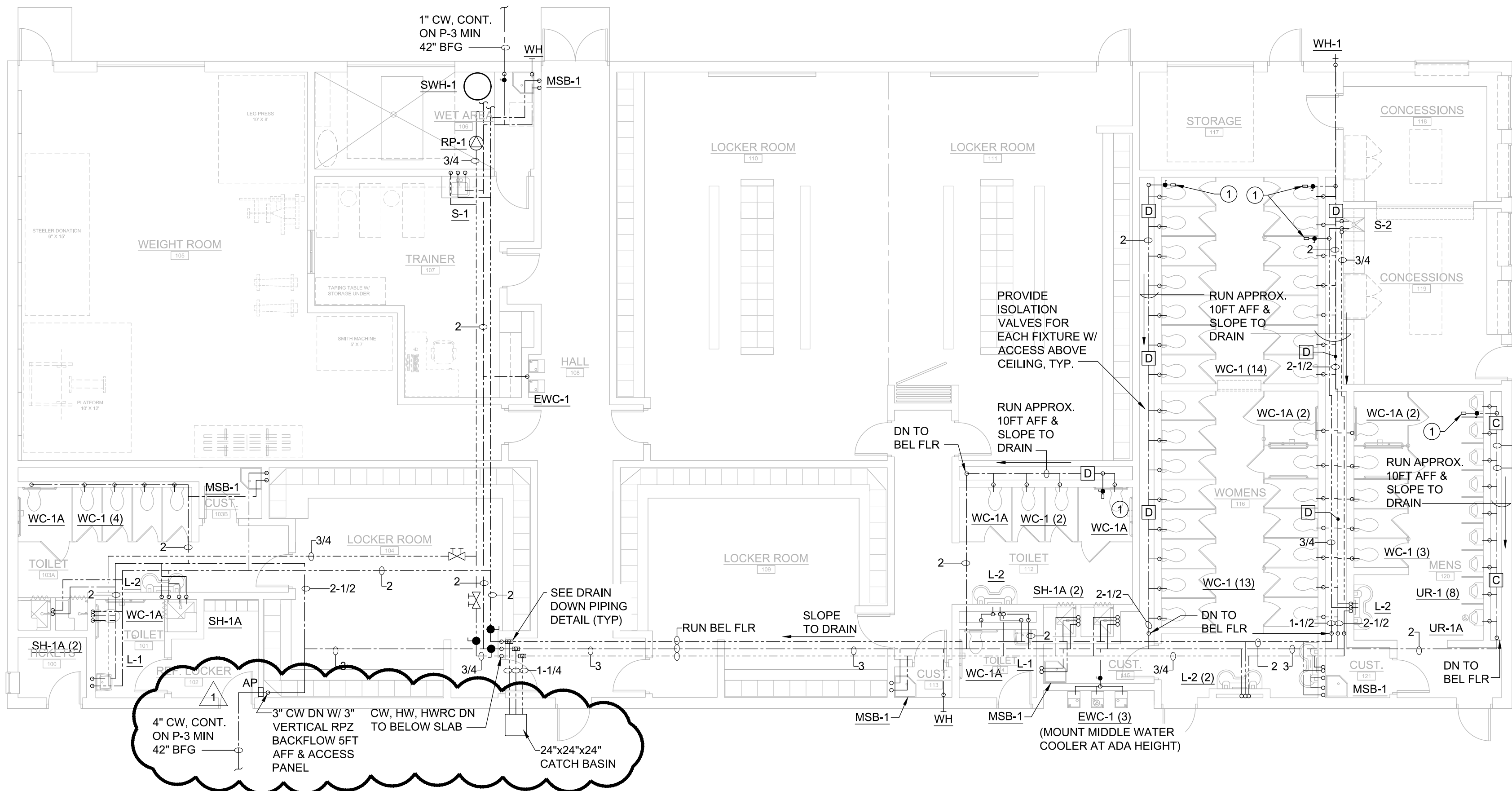


1 OVERALL FLOOR PLAN - SANITARY & VENT
SCALE: 1/8" = 1'-0"



2 OVERALL FLOOR PLAN - DOMESTIC WATER
SCALE: 1/8" = 1'-0"

④ NUMBERED NOTES:

① QUICK CONNECT AIR COMPRESSOR FITTING WITH SHUT-OFF VALVE ABOVE CEILING FOR PIPE DRAIN DOWN.

PLUMBING SPECIFICATION

QUALITY ASSURANCE: COMPLY WITH THE CURRENT:

- INTERNATIONAL PLUMBING CODE (IPC)
- INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- CABO A117; ADA ANSI A117.1; NSF 61 FOR POTABLE WATER DEVICES; NFPA 70; UL LISTING.
- MANUFACTURERS: PROVIDE PRODUCTS OF THE BASIS OF DESIGN MANUFACTURER AND MODEL LISTED ON THE SCHEDULES OR SPECIFICATION OR ALTERNATES SUBJECT TO COMPLIANCE WITH SPECIFIED CHARACTERISTICS AND/OR PERFORMANCE.

SUBMITTALS:

- PRODUCT DATA FOR EQUIPMENT, ACCESSORIES, AND FIXTURES.
- WARRANTIES AND GUARANTEES
- OWNERS OPERATIONAL AND MAINTENANCE MANUALS.
- COORDINATION DRAWINGS: DIMENSIONED PLANS SHOWING REQUIRED CLEARANCE AND ACCESS, FULLY COORDINATED WITH WORK OF OTHER TRADES.
- RECORD DRAWINGS: DELIVER TO OWNER AT THE COMPLETION OF THE PROJECT A SET OF PRINTS OF THE DRAWINGS MARKED IN RED SHOWING CHANGES IN LOCATIONS, MODELS AND CAPACITIES OF COMPONENTS.

PIPING AND FITTINGS:

- GENERAL: PROVIDE DIELECTRIC FITTINGS AND UNIONS FOR ALL PIPE CONNECTIONS OF DISSIMILAR METALS.
- EARTHWORK: PROVIDE TRENCHING (AND SHORING WHERE REQUIRED FOR DEPTH), #1 STONE BEDDING 6" BELOW AND 6" ABOVE PIPES, AND CLEAN BACKFILL COMPACTED IN 6" LAYERS FOR ALL BURIED PIPING UNDER BUILDING SLAB AND WHERE SHOWN, EXTENDED TO CONNECTION BY SITE CONTRACTOR. SEE GENERAL CONSTRUCTION SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.
- HOT AND COLD WATER: ABOVE GRADE, RUN IN TYPE L RIGID COPPER TUBING WITH WROUGHT COPPER FITTINGS WITH SILVER (NO LEAD) SOLDER. BELOW GRADE, RUN IN TYPE K SOFT COPPER TUBING WITH WROUGHT COPPER FITTINGS WITH SILVER (NO LEAD) SOLDER. PROVIDE DUCTILE IRON PIPE FOR OUTDOOR UNDERGROUND COLD WATER SERVICE WITH MECHANICAL RESTRAINED JOINTS AND HDPE CONTINUOUS PIPE FOR SERVICE TO TICKET BOOTH WITHOUT FITTINGS.
- SANITARY SEWER, VENT, & STORMWATER: RUN IN PVC SCH 40 DWV PIPING AND SOLVENT WELDED JOINTS. FOR SANITARY USE WYE FITTINGS ONLY. FOR VENT USE SANITARY TEES OR WYE FITTINGS ONLY.

INSULATION:

- DOMESTIC HOT WATER (HW & HWR) AND COLD WATER (CW): ASTM E84, UL181 PREFORMED ELASTOMERIC FOAM PLASTIC INSULATION (ARMAFLEX) (K=0.25 @ 75°F, R=4 /IN). APPLY 1.5" INS FOR 1.5" AND LARGER HW & HWR PIPES, 1" INS FOR SMALLER HW & HWR PIPES. APPLY 0.5" INS FOR ALL CW PIPE SIZES. SEAL JOINTS WITH MASTIC VAPOR TIGHT. PROVIDE PVC JACKET FOR EXPOSED PIPING.
- STORMWATER: FOAM PLASTIC INSULATION ASTM E84, UL181 PREFORMED ELASTOMERIC FOAM PLASTIC INSULATION (ARMAFLEX) (K=0.25 @ 75°F, R=4 /IN), APPLY 1/2" THICKNESS FOR ALL PIPE SIZES AND SEAL JOINTS WITH MASTIC VAPOR TIGHT. PROVIDE PVC JACKET FOR EXPOSED PIPING.

ESCUTCHEONS:

- PROVIDE CLIP-ON CHROME-PLATED ESCUTCHEONS AT ALL EXPOSED WALL, FLOOR AND CEILING PENETRATIONS.

SLEEVES:

- PROVIDE STEEL PIPE SLEEVES IN MASONRY WALL PENETRATIONS AND SHEET METAL SLEEVES (TIGHTLY FITTED TO THE CUT OPENING) IN WOOD PENETRATIONS.
- PROVIDE 3M FIRE CAULKING IN ALL SLEEVES IN WALL AND FLOOR PENETRATIONS.

IDENTIFICATION:

- PROVIDE PERMANENT LABELS ON ALL EQUIPMENT WITH DRAWING TAG AND NORMAL SETTINGS AS SPECIFIED.
- PROVIDE PIPE LABELS SHOWING TYPE OF DUTY (I.E. "COLD WATER" AND DIRECTION OF FLOW) AT 15 FOOT INTERVALS.

HANGERS AND SUPPORTS:

- PROVIDE CLEVIS HANGERS SIZED TO INCLUDE INSULATION WITH INSULATION SHIELDS.
- PROVIDE JOIST HANGERS AND ALL-THREAD RODS.
- FOR ROOF PIPE PENETRATIONS, PROVIDE RUBBER BOOT PIPE PORTALS AND CURB ASSSEMBLY BY PATE OR SIMILAR.
- INSTALL SUPPORTS FOR VERTICAL PVC PIPING EVERY 48 INCHES AND INSTALL HANGERS FOR HORIZONTAL PIPING WITH THE FOLLOWING MAXIMUM SPACING AND MINIMUM ROD DIAMETERS:
 - NPS 1" AND SMALLER: 36" SPAN & 3/8" ROD, NPS 1-1/4" TO 2": 48" SPAN & 3/8" ROD, NPS 2-1/2" TO 3-1/2": 48" SPAN & 1/2" ROD, NPS 4" TO 5": 48" SPAN & 5/8" ROD, NPS 6" & 8": 48" SPAN & 3/4" ROD.
- INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET AND INSTALL HANGERS FOR HORIZONTAL TUBING WITH THE FOLLOWING MAXIMUM SPACING AND MINIMUM ROD DIAMETERS:
 - NPS 3/4" & SMALLER: 60" SPAN & 3/8" ROD, NPS 1" & 1.25": 72" SPAN & 3/8" ROD, NPS 1.5" & 2": 96" SPAN & 3/8" ROD, NPS 2-1/2": 108" SPAN & 1/2" ROD, NPS 3" TO 5": 120" SPAN & 1/2" ROD.

VALVES:

- BALL VALVES: PROVIDE FOR SHUT-OFF OR THROTTLING APPLICATIONS, NIBCO MODEL S-S80 OR S-S90-Y FOR WATER. CHECK VALVES: PROVIDE WHERE ONE WAY FLOW IS REQUIRED, NIBCO MODEL S-W4P.
- WATER SERVICE BACKFLOW PREVENTER: ASSE 1013 WATTS MODEL LF909 REDUCED PRESSURE PRINCIPAL TYPE (OR SIMILAR) WITH BALL VALVES, STRAINER, AND AIR GAP FITTING.

RECIRCULATION PUMPS:

- IN-LINE, BRONZE BODY, CLOSE COUPLED, BRONZE OR STAINLESS STEEL IMPELLER SIZED OR TRIMMED FOR SPECIFIED PERFORMANCE, BUNA/CARBON CERAMIC MECHANICAL SEAL, 175 PSI, 225°F MAX.

PLUMBING SPECIALTIES:

- PROVIDE 100% SILICONE CAULKING FOR PLUMBING FIXTURES AT WALL, FLOOR AND COUNTER TOPS
- PROVIDE STICK TYPE THERMOMETERS AT WATER HEATER
- WATER HAMMER ARRESTERS: BASIS OF DESIGN JR SMITH PDI SIZE PER SCHEDULE AND PIPING PLAN.
- EXPANSION TANK: ASME DIAPHRAM TYPE, BASIS OF DESIGN BELL & GOSSETT PTA-12 OR AMTROL ST-12.
- ROOF DRAINS: CAST IRON, 15" DIA, CAST IRON LOW PROFILE DOME, BASIS OF DESIGN ZURN MODEL Z100.
- FLOOR DRAINS: CAST IRON, 9" DIA NICKEL BRONZE TOP, ZURN 4" MODEL: ZN415BZ.
- WATER CLOSET: 24x24x24 (WALL) FIBER REINFORCED POLYESTER FIBERGLASS WITH HEAVY-DUTY CARBON STEEL FRAME, 4-4 LONG CONCRETE REBAR ANCHORS, ZURN MODEL: Z817-24 (OR SIMILAR) AND CLASS 'C' DUCTILE IRON SLOTTED GRATE AS STANDARD, ZURN GRATE OPTION: DGC.

PLUMBING FIXTURES:

- WATER CLOSET (FLUSH VALVE WALL HUNG) WC-1/1A (ADA): VITREOUS CHINA, WALL HUNG ELONGATED BOWL, FULLY GLAZED BALLPASS TRAPWAY, SEAT OLSONITE #95 OPEN FRONT SEAT LESS COVER, 1-1/2" TOP SPUD, 2 BOLT CAPS, LOW CONSUMPTION 1.6 GPF, FILTERING DIAPHRAM FLUSH VALVE, VERTICAL, ADJUSTABLE FLOOR CARRIER W/4" NO HUB CONNECTIONS.
- URINAL UR-1/1A (ADA): VITREOUS CHINA, FLUSHING RIM, INTEGRAL STRAINER, 3/4" INLET SPUD, WALL HANGER, LOW CONSUMPTION 1.0 GPF, FLUSH VALVE, ADJUSTABLE FLOOR CARRIER.
- LAVATORY L-1 (ADA): WALL HUNG, VITREOUS CHINA CONSTRUCTION, REAR OVERFLOW, FAUCET LEDGE, FAUCET HOLES ON 4" CENTERS, GRID STRAINER, FAUCET: SOLID BRASS CONSTRUCTION, CERAMIC DISC VALVE CARTRIDGES, ALL BRASS DRAIN BODY, GRID STRAINER, SINGLE LEVER ADA HANDLE ANSI A117.1, AND NSF 61 COMPLIANT.
- LAVATORY L-2 (ADA): WALL HUNG, POLYMER COMPOSITE CONSTRUCTION, 47"x12.5"Wx6"D BOWL, 2-STATION AUTOMATIC SENSOR OPERATED FAUCETS WITH HARDWIRED LOW VOLTAGE POWER (PROVIDE TRANSFORMER & WIRING). STANDARD COMPLIANCE: ANSI Z124.3, Z124.4; ANSI/ ICPA SS-3. CSA B125.1; CSA B45 SERIES (R08); IGC 156; ASME A112.18.1.
- SINK S-1 (SINGLE BOWL, ADA): COUNTERTOP SELF RIMMING, 20 GAUGE STAINLESS STEEL, 6" DEEP BOWL, SINGLE FAUCET HOLE, AND BASKET STRAINER. FAUCET: BRASS BODY AND CAST BRASS SWING SPOUT, WASHERLESS CERAMIC DISC VALVE CARTRIDGES, AND NSF 61 COMPLIANT.
- SINK S-2 (SINGLE BOWL): COUNTERTOP SELF RIMMING, 20 GAUGE STAINLESS STEEL, 10" DEEP BOWL, SINGLE FAUCET HOLE, BASKET STRAINERS. FAUCET: BRASS BODY AND CAST BRASS SWING SPOUT, WASHERLESS CERAMIC DISC VALVE CARTRIDGES, AND NSF 61 COMPLIANT.
- SHOWER SH-1A (ADA): 36"x36"x78" INTERIOR DIMENSION, FIBERGLASS REINFORCED POLYESTER GELCOAT FINISH SHOWER ENCLOSURE WITH L-SHAPED GRAB BAR, L-SHAPED FOLD UP CUSHIONED SEAT, HAND HELD SHOWER, 24" SLIDE BAR, VACUUM BREAKER AND 60" HOSE, PRESSURE BALANCING MIXING VALVE, SOAP DISH, CURTAIN ROD AND SHOWER CURTAIN, BRASS DRAIN.
- WATER COOLER EWC-1 (ADA): 8GPH CAPACITY, BUILT-IN 100 MICRON STRAINER, STAINLESS STEEL TOP, GALVANIZED STEEL FRAME, REFRIGERANT R-134A, THREE PUSH PAD ACTIVATION, SANDSTONE POWDER COATED PAINT ON GALVANIZED STEEL, 5 YEAR WARRANTY.
- WATER COOLER EWC-2: 8GPH CAPACITY, BUILT-IN 100 MICRON STRAINER, OUTDOOR RATED VANDAL RESISTANT STAINLESS STEEL CONSTRUCTION, SINGLE PUSH BUTTON, GALVANIZED STEEL FRAME, REFRIGERANT R-134A, THREE PUSH PAD ACTIVATION, 5 YEAR WARRANTY.
- MOP SERVICE BASIN MSB-1: 24x24x10, ONE PIECE BASIN, WALL MIN 1" WIDE, STAINLESS STEEL DRAIN BODY, COMBINATION DOME STRAINER AND LINT BASKET, FAUCET: CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, 3/4" HOSE THREAD ON SPOUT, 8" CENTER TO CENTER FOUR ARM HANDLES. ACCESSORIES: HOSE AND HOSE BRACKET, MOP HANGER, STAINLESS STEEL WALL GUARD.
- WALL HYDRANT WH-1: ENCASED, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING, MODEL: PER DRAWING SCHEDULE.

COMMERCIAL ELECTRIC WATER HEATER:

- ASME 150PSI WORKING PRESSURE, NSF KIT, CORROSION RESISTANT GLASS LINED TANK WITH MICROBIAL ANTI-MICROBIAL COATING, BAKED ENAMEL FINISH, INTERNAL CIRCULATION TO REDUCE SEDIMENT BUILD UP AND INCREASE FIRST HOUR DELIVERY WITH MINIMIZED TEMPERATURE BUILD UP, 3" NON-CFC FOAM INSULATION ON SIDES AND TOP, SCREW-IN STYLE INCOLOY SHEATHED IMMERSION ELEMENT WITH PRE-WIRED TERMINAL LEADS, 120V CONTROL IMMERSION OPERATING AND HIGH LIMIT THERMOSTATS, SURFACE MOUNTED THERMOSTAT, HIGH LIMIT CONTROL, 3 YEAR LIMITED WARRANTY AGAINST LEAKS.

WINTER DRAIN DOWN PROCEDURE:

- CLOSE COLD AND HOT WATER ISOLATION VALVES THAT SERVE ENTIRE SECTION TO BE DRAINED FOR WINTER.
- OPEN ALL FAUCETS.
- PROVIDE COMPRESSED AIR TO OPERATE FLUSH VALVES.
- OPERATE FLUSH VALVE TO DRAIN LINE TO FIXTURE.
- CONNECT COMPRESSED AIR TO FITTINGS IN HOT AND COLD WATER PIPING.
- BLOW OUT OPEN FAUCETS WITH COMPRESSED AIR.
- CLOSE FAUCETS.
- OPEN SUMP PIT AND PLACE (OWNER FURNISHED) SUMP PUMP IN BOTTOM OF PIT.
- OPEN ALL DRAIN DOWN VALVES.
- BLOW OUT COLD AND HOT WATER PIPING WITH COMPRESSED AIR.
- REMOVE SUMP PUMP AND CLOSE PIT ONCE PIT HAS BEEN PUMPED OUT.
- FILL ALL FIXTURE TRAPS WITH FOOD GRADE ANTI-FREEZE.